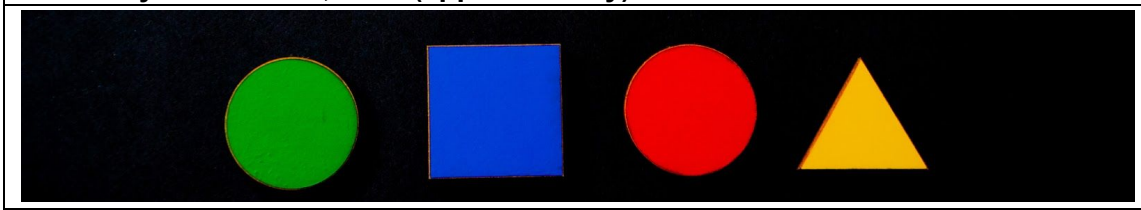
Grade: 3
Teacher: T. Jolley

Unit Plan for Mathematics

Date: May 24- June 12, 2020 (approximately)



Mathematics

Description: We will continue to practise and apply understanding of the operations through various problem solving activities that include fractions, measurement, area and perimeter, and money. We will spend time investigating patterns and describing the pattern rule using words and numbers, as well as exploring standard units to describe measurements, and touching on geometry as it relates to the relationship between 2D and 3D shapes

It is important that the students continue to review their multiplication facts so that they can be efficient with their application.

Understand

Big Ideas:

Development of computational fluency in addition, subtraction, multiplication, and division of whole numbers requires flexible decomposing and composing.

Fractions are a type of number that can represent quantities.

Regular increases and decreases in patterns can be identified and used to make generalizations.

Standard units are used to describe, measure, and compare attributes of objects' shapes

Essential Questions:

How might we use mental math strategies to solve equations?
In what ways can you represent one half, one quarter, one third?
What is the relationship between parts and wholes when we think about fractions?
When sharing objects, when is it appropriate to use fractions? When is it not?
What do you notice about these patterns?
How do numbers help us describe patterns?
How do standard units help us to compare and communicate measurements?
How do the properties of shapes contribute to buildings and designs?

Do

Curricular Competencies:

- Work toward developing fluent and flexible thinking about number
- Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
- Communicate mathematical thinking in many ways
- Use mathematical vocabulary and language to contribute to mathematical discussions
- Explain and justify mathematical ideas and decisions
- Represent mathematical ideas

Students will use Google slides to:

- solve problems
- apply their knowledge of numbers to demonstrate their understanding
- communicate mathematical thinking and justify their ideas using mathematical language
- use virtual base ten materials to demonstrate understanding and justify their thinking
- use virtual manipulatives to explore fractions of shape
- use virtual manipulatives to explore patterns

Core competencies

The students will be focusing on developing the highlighted skills throughout all areas of learning this week

Communicating
- Listening and responding
- Speaking purposefully
- Reading and responding
- Writing
- Non-verbal cues

Collaborating
- Cooperating, working collectively, sharing ideas and resources
- Encouraging, including and supporting others
- Group decision making

Personal awareness and responsibility (Self-Management)
- Time management
- Organisation
- Setting goals for learning
- Self-Advocating, seeking help when in need
- Accepting responsibility
- Self-regulation
- Making informed choices
- Well-being, staying healthy and active

Positive personal and cultural identity
- Understanding relationships and cultural contexts
- Recognising personal values and choices
- Identifying personal strengths and abilities

Social awareness and responsibility
- Respecting others
- Resolving conflict
- Building relationships
- Adapting a variety of roles
- Recognising diversity

Thinking Skills
Creative thinking
- Generating ideas and building on ideas of others
- Creating and innovating
- Evaluating and developing

Critical and reflective thinking
- Analysing and critiquing
- Questioning and investigating
- Reflecting and assessing

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- Reflect on mathematical thinking - share their thinking

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- use virtual manipulatives to explore 2D and 3D shapes

Students will demonstrate and practise mental math strategies as they work through their calculations.
Students will also reflect on their understanding using Quick-Check Emoji on Google Slides

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Research Skills
- Formulating questions
- Observing
- Planning
- Collecting data
- Recording data
- Organizing data
- Interpreting data
- Presenting research

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Curricular Content:
- Understand the concept of division (e.g., sharing, grouping, repeated subtraction)
- Multiplication and division are related.
- using addition, subtraction, multiplication and division in problem-based situations
- Use games to practise multiplication and division computations
- Look for patterns in numbers to further develop understanding of multiplication and division computation
- Make connections between the operations
- Fractions are numbers that represent an amount or quantity.
- Fractions can represent parts of a region, set, or linear model.
- Fraction parts are equal shares or equal-sized portions of a whole or unit.
- Equal partitioning
- Patterns can be described using generalisations
- The orientation of a shape will not change its properties

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Students will

Practise number facts using dice and card games
Use multiplication chart to explore patterns in multiples of numbers and how they relate to division
Explore and discuss connections between the operations
Solve problems using addition, subtraction, multiplication and division - Google slides
Use problems to explore half, quarter and third in relation division
Explore fractions of shapes using paper folding, and virtual manipulatives
Order and compare fractions
Record pictorial representations of fractions
Create increasing and decreasing patterns with objects, pictures and numbers
Make generalisations about patterns
Identify 3D objects according to the 2D shapes of the faces and the number of edges and vertices
Describe the attributes of 2D and 2D shapes

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Required Resources and Materials:
Pencil, paper or note book, ruler with cm and mm (if possible)
Paper for folding and cutting
Laptop with access to Internet and Google Drive
Headphones, webcam and microphone (if not part of the student's device)
Access to a camera (iphone, ipad, smart phone) that will allow students to photograph and share any work completed on paper or record videos about their learning.

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Organising their mathematical thinking clearly and coherently. Listening to the ideas of others, making suggestions, seeking clarification. Planning their time independently and effectively to review learning
Reflecting on their own ability and challenges - oral or written

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